

REMARKS

Applicants carefully reviewed the Office Action mailed September 25, 2006, and note with appreciation the Examiner's attention to detail in reviewing the specification. In response, the foregoing amendments address various transcription errors found in the specification, including those identified in the Action. The attached "replacement sheet" also includes a version of Figure 1 marked to identify the mold 12 schematically.

As for the Information Disclosure Statement previously filed, the Examiner refuses to consider the non-U.S. patent documents cited, presumably because copies were inadvertently not provided. Applicant now supplies copies of these documents herewith, and respectfully requests reconsideration. In the event the Examiner believes any fee is due, it may be debited from Deposit Account 50-0568.

Turning now to the substantive issues, pending claims 1-24 stand rejected as being directed to obvious inventions in view of JP 08-323872 to Kimio ("Kimio") as the primary reference in combination with various secondary references. With regard to claim 1, the Action expressly acknowledges that Kimio does not in any way teach or suggest the claimed step of "introducing a light facing veil," such that a portion of the resin of the second laminate layer substantially wets out the fibrous strand of the veil. Nevertheless, it is contended that "use of a facing veil layer is well known," with citation to U.S. Patent 4,302,499 to Grisch.

Grisch allegedly "teaches a resin impregnated veil layer that is applied over a fiber reinforced composite, wherein the resin of the fiber reinforced composite flows through the veil layer" (Office Action, p. 4, ¶ 7). Therefore, the conclusion is reached that "it would have been obvious . . . to apply a surface veil layer as taught by Grisch ('499) to the laminate in the process of

JP 08-323872 because, Grisch ('499) specifically teaches that a surface veil layer provides for improved corrosion resistance, hence providing for an improved product" (*Id.*). Besides the teachings of Kimio and Grisch, no evidence of a motivation for combining their teachings is identified.

In contrast to Applicants' proposed "hand laid" process, the Grisch patent discloses a wet mat process for forming sheet molding compound composite of sandwich construction. At column 3, lines 4-14, Grisch discusses the critical nature of the properties of a veil or fabric used with a sheet molding compound. Further, this reference mentions that "**during compression molding**, resin with which the veil or fabric has been preimpregnated and/or thermosetting resin from the SMC layer is liquefied by heat generated during the molding and is caused to flow through the fabric" (emphasis added).

Applicants respectfully submit that several important points regarding the Kimio and Grisch references are overlooked in contending that their teachings render the invention of claim 1 obvious as a whole for purposes of Section 103(a) of the Patent Act. Specifically, while Grisch does describe the use of a veil in connection with forming a molded article, it does not disclose, or in any way teach or suggest introducing a light facing veil comprising a fibrous strand and a "binder system" onto any laminate layer for any reason. Instead, Grisch merely emphasizes the critical nature of the composition of the veil used, as well as that a fabric or veil may be "preimpregnated." Nowhere does it even remotely teach or suggest that the veil used comprises "a fibrous strand and a binder system," as required in Applicant's claim 1. Since Grisch thus does not teach or suggest an express element of this claim, it is admitted that Kimio completely lacks this missing teaching, and no other evidence is cited in support of the rejection of claim 1, a *prima facie* case of

obviousness is lacking for this reason alone. See MPEP 2142 (Rev. 5, August 2006) ("To establish a *prima facie* case of obviousness . . . , the prior art reference (or references when combined) must teach or suggest all the claim limitations.")

A second, but equally important point overlooked is that a skilled artisan reviewing the teachings of the cited references would not in any way be motivated to apply a veil of the type set forth in claim 1 in the manner required by the claim. Specifically, despite being later in time than Grisch, the Kimio reference teaches at paragraph 19 that, in the case where reinforcement of the molded article is desired, "reinforcement frames" 25 such as "waterproof plywood, and synthetic wood or steel materials," may "intervene . . . between the continuous glass fiber reinforcement layer 23 and the staple fiber backup layer 26" (see paragraph 19 of the mechanical translation attached as Exhibit A; emphasis added). Thus, a skilled artisan reviewing the cited references and looking to provide a stronger article would at best be motivated to provide any additional "reinforcement frame," such one comprising the fabric or veil mentioned in Grisch, between the backing and the intermediate layer, rather than as required in Applicant's claim 1, in order to strengthen the resulting article. As discussed in the Background of the Invention section of Applicants' specification, such a "panel" approach to reinforcement is characteristic of the prior art, and is contrasted with that of the inventive approach.

Turning to Grisch, a skilled artisan reviewing its teachings would be motivated only to: (1) provide the fabric 20 adjacent a surface of the mold die (see col. 5, lines 57-58); or (2) provide the fabric 30 atop a carrier sheet 16 "before application of the synthetic resin" (col. 6, lines 5-7; emphasis added). These approaches starkly contrast not only with Kimio's specific

proposal to use a gel coating layer on the mold surface, but also with the process set forth in claim 1, which expressly requires that the veil is separated from the surface of the mold by several distinct layers.

In final analysis, it can be said that Kimio teaches away from the use of the facing veil, positioned as required in Grisch, for reinforcement purposes. Likewise, Grisch teaches away from the use of the gel coating layer of Kimio, with an expressed preference for applying the fabric 20, 30 directly to the surface of the mold or an equivalent carrier sheet 16. Consequently, these references if combined would simply not lead a skilled artisan to the invention of claim 1.

No doubt the alleged benefits of improved corrosion resistance and an "improved" product may indeed result from including the claimed light facing veil. However, as demonstrated above, these benefits do not alone provide the type of motivation that, in the absence of hindsight, would have "led a person of ordinary skill in the art to select the references and combine them in the way that would produce the claimed invention." *See, e.g., Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1385, 58 USPQ2d 1286, 1293 (Fed. Cir. 2001) ("In holding an invention obvious in view of a combination of references, there must be some suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to select the references and combine them in the way that would produce the claimed invention."). In other words, what in the prior art references cited (which is the only evidence from which the motivation may possibly be drawn here) would have led a skilled artisan to position a veil comprised of fibrous strands and a binder system onto a second laminate layer comprised of resin and fibers and otherwise arranged as set forth in claim 1? The Examiner admits that nothing in Kimio does. Accordingly, the only answer in the

25281B

present record can be Grisch, but this reference would not have led a skilled artisan to alter the arrangement of Kimio to arrive at the claimed invention for the foregoing reasons. Absent a proper motivation to combine the references in a way that would produce the claimed invention, a *prima facie* case of obviousness is lacking.

The rejections of dependent claims 2-24 all hinge upon the combination of Kimio and Grisch. However, as demonstrated above, these references alone or together do not teach or suggest the invention of claim 1, which forms a part of the inventions of each of dependent claims 2-24. Accordingly, allowance of these dependent claims is also in order.

In summary, all the pending claims patentably distinguish over the prior art and should be formally allowed. Upon careful review and consideration it is believed the Examiner will agree with this proposition. Accordingly, the early issuance of a formal Notice of Allowance is earnestly solicited. If any fees are required in respect to this Amendment, please debit them from Deposit Account 50-0568.

Respectfully submitted,

By:  12/13/06
Margaret S. Millikin
Reg. No. 38,969

Owens Corning
2790 Columbus Road, Route 16
Granville, Ohio 43023
(740) 321-5359